

Appendix G. Headwaters Wilderness Inventory and Study

Wilderness Inventory Evaluation

The U.S. Department of Interior Bureau of Land Management (BLM) conducted a wilderness inventory and study of the Headwaters Forest Reserve (Reserve) pursuant to policies established in the Final Wilderness Inventory and Study Procedures Handbook, dated January 9, 2001. This handbook contains BLM's policy, direction, general procedures, and guidance for the inventory and designation of wilderness study areas (WSAs) under provisions of Sections 201 and 202 of the Federal Land Policy and Management Act (FLPMA). These sections direct BLM to "prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern."

The primary function of the wilderness inventory and study is to document the presence or absence of public lands with wilderness character. Identification of an area (as a Wilderness Inventory Area [WIA]) for inventory required combining existing land status and available road inventory data. Where a road, right-of-way, or nonpublic lands separated the public lands, they were then identified as separate WIAs.

It was important to evaluate whether the area being inventoried contains roads. To ensure a consistent identification of roads as opposed to a vehicle way, the following definition has been adopted by BLM: "The word 'roadless' refers to the absence of roads which have been improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicle does not constitute a road." *Improved and maintained* means that people intentionally take action to keep the road open to vehicle traffic. *Improved* does not necessarily mean formal construction. *Maintained* does not necessarily mean annual maintenance. *Mechanical means* is the use of hand or power machinery or tools. *Relatively regular and continuous use* means vehicular use which has occurred and will continue to occur on a relatively regular basis.

Four permanent roads were identified within the Reserve. These roads divided the Reserve into five WIAs. Evaluations of each WIA included

- a description of acreage, land ownership, location, topography, vegetation and summary of major human uses/activities;
- a wilderness character analysis, which includes size, naturalness, outstanding opportunity for solitude or primitive and unconfined recreation, and supplemental values; and

- a summary of the wilderness character analysis.

Color photographs were taken to document each WIA. They illustrate representative as well as unusual characteristics of the area. Such characteristics include roads, ways, topographic and vegetative features, recreational attractions, human impacts, development and facilities, and supplemental values which are important in evaluating the presence or absence of roads and wilderness values. Photos correlate to a large-scale map.

A permanent documentation file for each WIA, is available for public review at the Arcata Field Office. Each file describes acreage, land ownership, location, topography, vegetation, human impacts, the presence or absence of wilderness values and contains a summary of supplemental values.

Summary of WIA Inventory Evaluations

Wilderness Inventory Areas 01, 02, 03, and 04 are all very small. WIA 01 is 55 acres, WIA 02 is 75 acres, WIA 03 is 10 acres, and WIA 04 is approximately 275 acres. All 4 WIAs show very little sign of being in a natural condition and have been heavily influenced by human activities. WIAs 01, 02, and 03 were found not to have outstanding opportunities or either solitude or primitive and unconfined types of recreation. WIA 04 was identified as having outstanding opportunities for solitude but no outstanding opportunities for primitive and unconfined types of recreation. WIAs 01, 02, and 04 were found to contain supplemental values (fisheries, wildlife, ecological), whereas WIA 03 does not have supplemental values.

Wilderness Inventory Areas 01, 02, 03, and 04 all have substantial impacts that cover virtually the entire landscape for each WIA. Because of their small size and abundance of impacts that caused each of these 4 WIAs to be substantially unnatural and lacking of wilderness character, they were excluded from further study.

The remaining WIA (CA-330-05) initially totaled approximately 6,985 acres. Being over 5,000 acres in size meets the size criteria for designation as a Wilderness Study Area (WSA). During the evaluation of naturalness, it was found that portions of the WIA along its boundary had been extensively disturbed, almost entirely by past timber harvesting activities, including road building, construction of landings, and formation of skid trails. Preliminary inventories of disturbed areas indicate that at least 45 miles of former logging roads are located in the WIA. This does not include the many miles of skid trails that traverse the landscape. In addition, there are an estimated 135 developed stream crossings (culverts, stringer bridges, Humboldt crossings).

Because of these substantial unnatural features, three boundary adjustments were made to identify the parts of WIA 05 that appear natural and parts that do not. These three boundary adjustments, totaling 1,100 acres, reduced the size of the WIA to 5,885 acres. These adjustments were made to exclude substantial human impacts. Two of the parcels bordering the WIA have been identified as highly disturbed due to recent timber harvesting activities. The third parcel (Elk River Corridor) was excluded due to a variety of human impacts, including timber harvest activities and introduction of nonnative vegetation.

The 5,885-acre WIA contains approximately 3,100 acres of unharvested redwood forest preserved in its natural condition. The remaining portion of the WIA (2,785 acres) has been impacted by human-caused activities, but much of this area has returned to a condition such that the average visitor may not realize that the area has been disturbed. The WIA as a whole has been affected primarily by the forces of nature while the imprint of human work is substantially

unnoticeable. The WIA's large stands of old growth redwood forest, rugged topography, and dense vegetation provide outstanding opportunities for solitude. There are also outstanding opportunities for a primitive and unconfined hiking experience. Outstanding supplemental values include ecological (old-growth redwood forest and its abundance and diversity of old growth dependent plants and animal species), wildlife, fisheries, scientific, educational and historic features. Overall, WIA 05 meets all the minimum criteria for being designated a WSA.

Wilderness Study Evaluation

The one WIA (CA-330-05: Headwaters) found to possess the requisite wilderness characteristics as defined by the Wilderness Act of 1964 was further evaluated through the land use planning process to determine if it should be designated as a WSA. The other four WIA's were found to be substantially unnatural, lacking in wilderness character, not of sufficient size, and were therefore not studied further.

The Headwaters WIA was evaluated using regulations from 43 CFR 1600 and the BLM 1600 Manual and Handbook series to determine:

1. the overall quality and extent of wilderness values within the WIA;
2. other resource values and uses; and
3. the ability of BLM to manage the area as a WSA.

These elements were then used to determine the most appropriate land use allocations for the area, (i.e., whether the entire WIA should be designated as a WSA to be managed under the Interim Management Policy [IMP], BLM Handbook 8550-1 or whether a smaller, partial WSA alternative might be more appropriate). This information also provides a basis to compare the impacts of various WSA alternatives on other resource management programs and actions, which are discussed in chapter 6, "Environmental Consequences (Environmental Effects and Alternative Comparisons)."

Evaluation of Wilderness Values

The following information considers the extent to which the quality of the Headwaters WIA (CA-330-05) mandatory and optional wilderness characteristics contribute to the overall value of an area for wilderness purposes. This process aided in determining and documenting the quality of the identified wilderness characteristics, and the degree to which these characteristics are present in the WIA. These components must be evaluated in determining an area's value as a WSA.

Quality of the Area's Mandatory Wilderness Characteristics

Naturalness

The area generally appears to have been affected primarily by nature, with the imprint of human work substantially unnoticeable. The 3,100 acres of intact old growth forest shows very little sign that people have ever visited the area. The rugged topography and diverse vegetation creates a primeval environment. There are a few signs of human impact within this unharvested area.

There are varying degrees of quality of naturalness on the 2,785 acres of harvested land. On approximately 200 acres in the southwestern portion of the WIA in Sections 17, 18, and 20 is a clearcut area that was tractor-logged and shows no sign of naturalness. Many logging routes and skid trails are highly visible. Another smaller 40-acre parcel is in similar condition, located at the end of the existing Elk River Trail in Section 9. These two areas are termed “shrub harvested.” It will take at least 20 years before trees grow large enough to make these two areas appear to be in a somewhat natural condition to the common visitor.

Two additional areas totaling approximately 1,300 acres have been impacted by timber harvest activities, and they may appear to be in an unnatural condition to some visitors while appearing mostly natural to others. They are located in the southern portion of the WIA in Sections 18, 19, 20, 21, 22, 27, and 28. These areas are termed “pole-harvested,” and were logged in the mid-1980s. They appear in a more natural condition than the shrub harvested areas. The trees that remained after the logging and the new trees that have had time to grow have created a semi-natural condition.

The remaining timber harvest areas total approximately 1,000 acres and generally appear in a natural condition to the common visitor. Most of this land is located in the northern portion of the WIA in Sections 5, 8, and 9. Because, in most cases, these areas were logged more than 20 years ago, the landscape has rehabilitated into a natural condition while the effect of human work is substantially unnoticeable.

Imprinted portions of the WIA could be separated from the areas appearing more natural and untrammelled. The two shrub- harvested and two pole-harvested areas could be removed, or a lesser amount of acreage depending on which area selected to be excluded.

The overall influence of human imprints on the naturalness of the WIA is not substantial when considering the entire area as a whole from the viewpoint of the common visitor. As discussed above, two highly disturbed areas and two moderately disturbed areas do diminish the quality of the WIA’s natural condition.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

Although the WIA is relatively small in size, it does provide outstanding opportunities for solitude, particularly in the large stands of the old-growth redwood where the dense vegetation and rugged topography provide excellent visual screening. Although it is not necessary for wilderness inventory criteria to match visitor management criteria, visitors can easily find secluded spots within the old-growth forest. Finding solitude in the harvested areas is more difficult because there is less vegetation screening. The more recent the timber harvest occurred, the more difficult it is to find secluded spots.

Outside sights and sounds are present when adjacent landowners are performing timber harvest activities on their private property. Heavy mechanical equipment and chainsaws can be heard from at least two miles. Low-flying helicopters can be seen and heard when helicopter logging operations are occurring. These types of activities occur predominantly during the summer and early fall. They are not continuous, but occur periodically.

Primitive and Unconfined Recreation

Day-use hiking is currently the only activity where visitors are provided with an outstanding opportunity for a primitive and unconfined recreation experience. The last half of the Elk River Trail and the Salmon Creek Trail provide visitors with rewarding hiking experiences. The sights of the majestic old-growth redwood forest are outstanding. Bird-watching and other wildlife viewing opportunities are available along these two trails. Because hiking is currently the only recreation activity allowed in the WIA, the diversity of the area's primitive recreation opportunities is low.

Quality of the Area's Optional Wilderness Characteristics (Supplemental Values)

The WIA contains outstanding ecological values and features of scientific, educational, scenic and historic interest. The most outstanding ecological value is the unique, old-growth redwood forest and its abundance and diversity of plants and animal species that depend on the old-growth forest. The WIA holds important habitat for threatened animal species including the marbled murrelet, northern spotted owl, coho salmon, chinook salmon, and steelhead. The WIA has unique scientific and educational values because of the opportunities available to study an undisturbed old-growth redwood forest. Views of the huge, majestic redwood trees are excellent. Archeological sites and a historic trail are also located within the WIA.

Evaluation of Manageability

Much of the WIA can be effectively managed to preserve its wilderness character, both to maintain the quality of its wilderness characteristics and to ensure continuation of its current uses and multiple resource benefits. Most of the expected uses and activities within the WIA are consistent and meet the criteria for allowed uses in BLM's Interim Management Policy For Lands Under Wilderness Review, Handbook H-8550-1. These activities and management actions include watershed restoration work (logging route/way removal and recontouring to a natural topography), scientific research, resource monitoring, and a variety of low impact recreation activities. Allowed recreation uses must be consistent with fostering education and interpretation of the WIA's unique biological resources and maintaining ecological integrity and must be supportable with minimal facilities.

Management activities identified with the Forest Restoration program are not considered to be consistent with, and do not meet the criteria for allowed uses in WSAs. These actions include tree thinnings and brush removal in highly disturbed timber harvest areas.

A portion of the WIA's subsurface rights are owned by private parties. This situation limits BLM's ability to preserve the area's wilderness character on the surface. It is BLM's intent to acquire these subsurface rights, which would eliminate this conflict. The State of California has obtained a conservation easement over the entire WIA, which complements the WIA being managed to preserve its wilderness character.

There are no nonfederal holdings within the WIA; therefore, no manageability problems exist with providing access subject to valid existing rights.

Other Resource Values and Uses

Very few other resource values and uses of the area would be forgone or adversely affected as a result of designating the WIA a WSA. The proposed forest restoration program, which includes management actions such as small tree thinnings and brush removal in previously harvested areas, is not consistent with BLM's interim management policy for lands under Wilderness review. Resource values such as threatened or endangered plants and animals, fisheries, and other wildlife would benefit from designation of the area as a WSA. BLM has no plans to allow for timber harvesting, removal of forest fiber products, timber stand conversion, grazing operations, mining operations, issuance of new right-of-ways, oil, gas, geothermal, and mineral leases, prescribed burning, and recreational activities such as off-highway vehicle use, fishing, and hunting.

Wilderness Study Area Alternatives

After evaluating the quality of wilderness values, and in particular the degree of naturalness in various parts of the WIA, manageability, and other resources and uses, the potential for developing various WSA alternatives was explored and analyzed in chapter 6, "Environmental Consequences (Environmental Effects and Alternative Comparisons)." These alternatives are described below.

- Alternative A would designate the entire 5,885-acre WIA as a WSA. The WSA would include all the timber harvest areas, which reduces the quality of the area's natural condition. This alternative would preclude forest restoration activities such as small tree thinning and brushing. These activities are considered an important and necessary ingredient for accelerating and creating the conditions that lead to the development of an old growth forest. Outstanding opportunities for a primitive recreation experience would be maintained.
- Alternative B would designate the undisturbed, old-growth redwood forests, other unharvested forest, and the mid-mature and early mature harvested areas (these areas generally appear natural) as a WSA, totaling approximately 4,400 acres. The most heavily disturbed and unnatural-appearing areas would be excluded. There would be no conflicts with manageability or other resources and uses because this WSA would exclude all the lands where forest restoration projects would occur. Opportunities for a primitive recreation experience would be maintained.
- Alternative C, the "No Action" alternative, would not designate any portion of the WIA as a WSA. There would be no manageability concerns and opportunities for a primitive recreation experience would be maintained.